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AUTHOR West, Edwin G.
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ABSTRACT

The National Commission on Excellence in Education has concluded that the quality of education in public schools in America is declining. Other reports have indicated that serious basic skill deficiencies have been identified among secondary school graduates and nongraduates entering the work force. Total annual public educational expenditures rose by 8 percent from 1971 to 1981, although enrollment and achievement (the latter measured by scores on the Scholastic Aptitude Test) declined. The average current expenditure per pupil is twice as high in public schools as in private schools. Several issues have been studied to determine their correlation with student achievement--for example, different types of schools and classrooms, teacher characteristics, salary differentials and merit pay, class size, physical resources, instructional strategies, and the use of time in schools. Public opinion has also reflected several issues of concern: obtaining proper financial support, drug usage, poor curricula, difficulty getting good teachers, teachers' lack of interest, integration/busing, discipline, violence, and vandalism. The 1982 Coleman study has suggested that private schools have a more efficient performance record than public schools. Specific proposals for reform by the Commission include increasing the school year, requiring more math and science classes, encouraging competition between public and private schools, and deregulating public and private education from state control. (BJD)

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ARE AMERICAN SCHOOLS WORKING? DISTURBING COST AND QUALITY TRENDS

by Edwin G. West

I. INTRODUCTION

Three blue-ribbon study commissions have recently reported on the state of education in American. The most noted of these, the National Commission on Excellence in Education, came to some disturbing conclusions. In its April 1983 report it is revealed that approximately 13 percent of all 17-year-olds, and perhaps 40 percent of minority youth, are functionally illiterate. In 19 academic achievement tests given in 21 nations, American students never finished first or second and were last seven times. Nearly 40 percent of today's 17-year-olds cannot draw inferences from written material, and only a third can solve a math problem requiring several steps. Between 1975 and 1980 there was a 75 percent increase in remedial math courses at four-year public colleges. Finally, scholastic aptitude tests (S.A.T.s) fell continuously between 1963 and 1980.[1]

The Commission's language was strong, but probably no stronger than the feelings of the American public. According to a May 1982 Gallup poll of the public's attitude toward public schools, faith in America's future rests more on developing the best educational system in the world than on developing the best industrial system or the strongest military force. Every major population group of respondents placed education first, the industrial system second, and military strength third.

The poll asked:

> In determining America's strength in the future -- say, 25 years from now -- how important do you feel each of the following factors will be -- very important, fairly important, not too important, or not at all important?

Edwin G. West is professor of economics at Carleton University in Ottawa, Canada, and the author of numerous works on the economics of education. Among his books are The Political Economy of Public School Legislation, Education and the State: A Study in Political Economy, and The Economics of Education Tax Credits.

The proportion of those questioned that thought developing the best education system in the world was "very important" was 84 percent. This compared with 66 percent and 47 percent respectively who thought that developing industry and strengthening the military force were very important.

The American people obviously are becoming increasingly disturbed by the widespread reports and personal experiences of the declining quality of their public schooling. Consider the change in public opinion on public school quality: In 1974 public schools were given an A or B rating by 48 percent of those interviewed in a Gallup poll; by 1982, however, the ratio had declined to 37 percent.[2]

Finally, a report published in 1983 by the Center for Public Resources (CPR) entitled, Basic Skills in the U.S. Work Force, identified serious basic skills deficiencies among secondary school graduates and non-graduates entering the work force. These findings were in conflict with the views of educational suppliers, however. While most companies reported basic skills deficiencies in most job categories, over 75 percent of the school system rated their graduates as "adequately prepared" in the basic academic skills needed for employment.

In this article we will look at several probable reasons for the disaffection with public schooling in 1980. Section II will examine the latest trend in educational costs. Section III will look at adverse changes in school achievement levels and school organization. Section IV will return to the subjects of the public's opinion on the quality of education. Section V will focus on the problem of discipline and violence in schools. Section VI will compare public with private school quality; Section VII will review the prospect for reform.

II. THE COST OF PUBLIC SCHOOLS

Expenditure Growth Over the Last Decade

In real terms, total annual expenditures of regular educational institutions (in 1980-1981 dollars) rose from $174.2 billion in 1970-71 to $188.3 billion in 1980-81. They are projected to increase to $205.4 billion in 1990-91.[3] This implies a growth in real (inflation-adjusted) expenditures of 8 percent over the last decade. It would not have amounted to a real cost increase per unit of educational "output," however, if either (a) school enrollments had increased by 8 percent, or (b) educational output (achievement) had increased by the same ratio. In fact, however, enrollment and achievement (as measured by S.A.T. scores) both declined, which

indicates that the real cost increase was greater than 8 percent over the last decade. Enrollment in public elementary and secondary schools fell 11 percent between 1970 and 1980.[4] The average verbal S.A.T. score fell from 460 in 1970 to 424 in 1980. The average math score fell from 488 to 466 over the same period.[5] (The small rise in the S.A.T. scores in 1981-82 will be discussed below.)

Teacher salaries do not seem to be the main cause for the cost increases in education. Consider Table I.

TABLE I

Current Expenditures Per Pupil in 1980-81 Dollars

Year	Total	Teachers' salaries	Other	Percent for teachers' salaries
1970-71	$1,982	$ 975	$1,007	49.2
1975-76	2,343	1,044	1,299	44.6
1980-81	2,553	989	1,564	38.7

Source: Projections of Education Statistics, National Center for Education Statistics, 1982.

The reduction in the amount spent on teachers' salaries took place despite increasing teacher-pupil ratios during the decade. The increase in other expenditures is a striking measure of the rise in the costs of bureaucracy over the period. It is interesting that such administrative cost inflation has coincided with an increasing dependence on state funds. The share of local funds in revenues of U.S. public schools fell from 83 percent in 1920 to 43.4 percent in 1981-82. The federal government's share rose from under 2 percent in 1940 to 8.6 percent in 1981-82. The creation of the U.S. Department of Education by President Carter in 1980 was clearly consistent with these trends.

Comparisons with Private Schooling

Economic theory predicts that increasingly centralized government provision of goods and services results in growing monopolization.[6] One way to test this proposition is to compare the costs of public provisions with those in the private sector.

Table II provides some relevant facts. It shows that, on average, private schools spend 50 percent less per pupil than public schools. The lower cost of private schooling is consistent with the theory that the costs of bureaucracy are lower where institutions are smaller and act in competition with each other.

TABLE II

Average Current Expenditures Per Pupil
in Public and Private Schools

School year	Average	Public	Private
1976-77	$1,353	$1,544	$760
1977-78	1,512	1,736	819

Source: NCES Bulletin, U.S. Department of Health, Education, and Welfare, October 23, 1979.

Teachers' salaries, of course, are an important part of the total operating costs, between 60 and 80 percent of a school's total expenditure. The National Center for Education Statistics recommends caution, then, in making such cost comparisons. More than three-quarters of the private school teachers are employed by church-affiliated schools, and services contributed by teachers in these schools result in lower salary expenditures. Unpublished data indicate, for instance, that approximately 20 percent of Catholic school teachers are members of religious orders and are paid substantially lower rates than other teachers.

It does not necessarily follow, however, that because teaching members of religious orders are paid less than other teachers they are further away from "true" market levels. Public school teachers are often strongly unionized, so there may be significant monopoly elements in their salaries that place them well above market levels. We should keep in mind, too, that only 20 percent of the private school teachers are reported to be in the category of "religious orders."

The Center also cautions that the figures for private education were collected on a school-by-school basis and about one-half of the schools did not respond. Fifty percent is a large sample, nevertheless. And if it was biased at all it would have been because of the over-representation of larger

and higher income (and tuition) schools, which can more readily afford the time and cost of answering surveys. This means that, if anything, the figures of expenditures on private pupils reported in Table II would be overestimated, making the cost differences between private and public schools even more striking.

Such conclusions about cost differentials will come as no surprise to economists. For half a century now they have been employing systematic analysis to explore the differences in private wealth pursuits by public and private firms. More importantly, they have recently been obtaining strong empirical evidence of public/private cost differences that appear to match those just reported in education. On the subject, for instance, of private contracting versus public supply of fire services, it has been found in the two U.S. localities studied that the private firm turned out the same effective service for half the cost. Other research has estimated that there is a 40 percent savings of the private over public arrangements for garbage collection. In the area of ship repair, weather forecasting services, and debt collection, a study published in 1980 based on U.S. General Accounting Office material calculates that costs are at least double and triple in the public as opposed to the private sector.[7]

Viewed from this perspective, the figures for public and private school expenditures are not particularly surprising. And even if some adjustments should be made for teaching salaries in church-related schools, we should also remember that our assumption has been that the educational "outputs" of the independent and public school systems are not very different from each other.

There is little published research on the differences of school outputs, and clearly much more is needed. It would be particularly interesting to compare the number of hours of teaching, especially in the area of literacy skills. Since, on average, public school teachers are more union-organized than those in the private sector, it may be that the total hours of educational "output" are somewhat less in the public sector.

III. THE QUALITY OF SCHOOLING

S.A.T. Scores

The period from 1963 to 1980 was one of continuous decline in both mathematics and verbal test results. In 1980, however, there was a levelling off and, for the first time in 19 years, scores on both parts of the S.A.T. rose in 1981-82.

The class of 1982 surpassed the previous year's seniors by two points on the verbal section of the test and by one point on the mathematics section. This is only a relatively small improvement, however. The verbal and mathematics scores for 1982 averaged 426 and, 466 respectively. This still compares very unfavorably with the figures of 477 and 501 for 1963. In any case, part of the increase over the last year may be the result of a decline in the number of students taking the achievement tests.[8]

The 1983 National Commission Report

According to the report of the National Commission on Excellence in Education, "a tide of mediocrity" has devastated public education. Basing its figures on 18 months of study, the Commission concluded in even more dramatic terms that, "We have, in effect, been committing an act of unthinking, unilateral education disarmament."[9] In particular, the Commission found: a poor average quality of teaching, a widespread abandonment of academic and vocational studies for "general track" courses and electives; only one year of math and one year of science required for a high school diploma in 70 percent of the states; the absence of a foreign language requirement for a high school diploma throughout the states; and the obligation of 20 percent of all four-year state colleges to admit anyone with a high school diploma. The tendency of succeeding generations to improve educationally over their predecessors appears to be at an end. For the first time in the history of our country, the educational skills of one generation will not surpass, will not equal, will not even approach, those of their parents."[10]

Studies of Differential School Effectiveness

Until recently, most empirical attempts to identify which inputs matter in schooling concluded that schools barely make a difference. A student's achievement was a function of his genetic endowment, socio-economic status, and peer group characteristics.

Recent analysis, however, suggests that public school systems are significantly heterogenous and that schools do make a difference. Research conducted in the schools in London by Professor Michael Rutter and his colleagues is one demonstration of this.[11] Rutter showed that the scholastic performance of children was affected by the school attended, but not significantly by factors such as school size, age of building or space available. Rutter observed that, "It was entirely possible for schools to obtain good outcomes in spite of...unpromising and unprepossessing school premises." He concluded that it was a set of factors mainly involving

actions taken by school personnel that determined successful schools. This would include schools that had teachers who, among other things, prepared the lessons in advance, arrived on time at the start of the lesson, and taught by directing attention to the class as a whole. It was also found that children had better success in schools where they were given homework that was regularly assigned and graded, and when the children were consistently told that they could and would learn.

Rutter's investigation is only one of many quantitative studies of school effectiveness that have been conducted (mainly in the U.S.) over the last 17 years. Most of these have been "natural experiments" whereby the variation in school resources created by the operation of a school system has provided the data base for analysis. The key variables have been information on the school resources received by children at some point in time, together with available measures of student progress. Information has also usually been included about the students' family backgrounds.

Much more precision has been obtained in the most recent studies in which a child's progress has been used as the measure of school effectiveness instead of the student's achievement level. In terms of the economist, the focus has been on that "value added" from a given learning period as distinct from a measure of the pupil's current total "stock" of educational value. More accuracy has also been obtained in the definition of school resources. At first the emphasis was on physical facilities, library books, student-teacher ratios, and school size. Recent additions have included indicators of teacher quality, peer influence, and the amount of time devoted to basic skills.

The main conclusion has been that there are significant differences in student progress among different schools and different classrooms.

Teachers

When Eric Hanushek focused on the effect of different teacher characteristics on student achievement, he found that hiring practices in school districts encourage an inefficient allocation of resources. While the current practice is to reward teachers in proportion to experience and graduate education, in Hanushek's findings these variables did not contribute to gains in student achievement scores. The characteristics that did matter, moreover, were not highly correlated with these factors.[12]

Hanushek found that the intellectual skills of a teacher, as measured by a verbal ability test, tended to have a

significant influence on gains in student achievement. Others have found that the quality of the college the teacher attends is influential.[13] It has also been revealed that some teachers are more effective with certain types of students than with others.[14]

As is commonly the case, the effect of unionization on the teaching profession has been to produce a homogenous salary structure across a profession that is heterogenous in effort and skills. The result is that many better teachers, unsatisfied with the low average salary, tend to move on to non-teaching professions. A study in 1981 supported the conclusion that teachers who scored highest on measures of academic ability were most likely to leave teaching early.[15] It is also true that those teachers who have more salable skills, such as those in mathematics and science, are more likely to quit early. This situation has led to a severe shortage of science and math teachers at a time when there is an overall surplus of teachers.

Salary Differentials and Merit Pay

Teachers and administrators have been very reluctant to apply the obvious solution: to agree to pay the "scarce" groups of teachers more than others. The view of the educational establishment is that teaching of science and mathematics is not more important than teaching history and English or a foreign language. The Houston Independent School District is exceptional in having operated a program of salary increments for teachers in fields with critical needs, including math and science, since the fall of 1979. The Houston plan is opposed by the teachers' union, and it is difficult to say how long it will survive despite its success in resolving the teacher shortages. (The 1982-83 salary augmentation for science and math teachers in Houston is $2,000 per year.)

Early in 1983 the governor of Tennessee campaigned for what he called a "master teacher" plan. It proposed incentive payments of up to $7,000 on a 12-month contract for teachers who qualified. Although he was able to win the support of parents, businessmen, and special business lobbies, he was unable to convince the powerful teachers' union. The union was apprehensive that the merit pay system would undercut its negotiating power and that the five-year view would jeopardize job security.[16] The proposal was finally tabled until 1984.

The two big teacher unions, the National Education Association and the American Federation of Teachers, both oppose merit pay on principle. AFT president Albert Shanker contends that teachers do not believe that principals, super-

intendents, and school boards would be fair judges of merit. He argues that the resentment caused by those who fail to win the teaching "prizes" might cause some industrious teachers to resign.

If, however, principals, superintendents, and school boards are not competent to judge the merit of teachers, it is difficult to know who is. More important, Shanker's view is challenged by reported systematic evidence. Two studies that have analyzed the relationship between principals' evaluations of teachers and the effectiveness of teachers, as measured by their students' progress on standardized tests, have found that the evaluations were significantly related to student test score gains.[17]

Class Size

This is a subject on which there has been an enormous amount of research. At the moment, however, there is no consensus on the effect of class size on student achievement. In a survey of research on the subject by Glass and Smith in 1978, it was found that average achievement in classes with 20 students was only marginally higher than average achievement in classes with 30 or 40 students.[18] This seems consistent with the facts of increasing teacher-pupil ratios over the past two decades, such that typically, class sizes have been falling from, say, 30 to 28 students, while at the same time there have been no notable overall increases in achievement. (In 1961, there were 39 teachers per thousand students in public elementary and secondary schools. By 1980 this ratio had increased to 53.3.)

The same survey by Glass and Smith did find that average student achievement was significantly improved in very small classes, i.e., classes with 20 or less students compared with those with more than 20. Clearly, the prospects for obtaining such reduction in classes in American public schools are not very good judging by the current trend of a declining percentage of total expenditures per pupil devoted to teachers. (See Table I.)

Physical Resources

Another undesirable policy, if the objective is increased student achievement, is to substitute capital for labor at the margin. It would defeat the purpose to concentrate on physical facilities, such as the quality of the science labs or the size and age of the school, judging by the earlier quantitative studies on school effectiveness. (A recent endorsement of these findings is also to be found in the study by Rutter quoted above.)

Instructional Strategies and the Use of Time in Schools

Reforms in instructional methods, curriculum, etc., usually occur in cycles, with one fad often superseding another. This is partly due to the fact that, with limited resources, reforms have had to be concentrated on parts of the whole system. Many of the fashionable reforms pressed upon teachers by growing numbers of administrators have lessened class contact time. It has been revealed, for instance, that some teachers spend up to 46 percent of class time in such non-instructional tasks as grading papers, getting organized, or having their students complete homework assignments.[19] It has also been observed that many U. S. school districts have been reducing school time by cutting the school day or the school year. Nearly a third of California's high school pupils, for instance, now face a school day shortened from seven to five periods, which is a loss of two-sevenths of the available instructional time.[20] The NCEE strongly recommends that school districts consider seven-hour school days and school years of at least 200 days instead of the current 180 days.

There has also been a reduction in the role of homework. In a report by the National Assessment of Educational Progress more than two-thirds of 17-year-olds said they spent less than one hour a day or no time at all on homework.[21]

Meanwhile, even with shorter school hours, there has been a shift away from the basics. The NCEE reported a move toward what it calls a "cafeteria style" curriculum, which has resulted in less emphasis on courses such as English, algebra, and French and toward such subjects as general social studies, home economics, and training for marriage and adulthood.

It is not clear how much this shift in courses springs from considerations of genuine changes in demand and how much from changes in supply as implied by the serious dearth of teachers in the more academic areas. These supply constraints are not trivial. Over 40 states report shortages of high school mathematics and physics teachers, according to a 1981 survey by the Association for School, College, and University Staffing. Other areas in which teacher scarcities exist are high school chemistry, earth science, and biology.[22] The National Education Association has reported that 22 percent of all secondary school math positions in the U. S. either are not being filled at all, or not by certified math teachers.[23] In 1983 alone, the Los Angeles Unified School District will be looking for 600 math teachers.[24]

Such restrictions on the supply of offerings by the public school system are obviously a direct result of poli-

cies that try to obtain adequate supplies of some groups of teachers at less than market prices while providing other teachers with above-market prices.

IV. PUBLIC OPINION ON SCHOOL QUALITY

Leading Problems

Each year the Gallup Poll asks questions about educational issues of greatest concern to society. A sample is taken of 1,557 adults through personal, in-home interviews in all areas of the U. S. and in all types of communities.

Table III shows what the public perceives to be the most serious problems confronting public schools, according to the 1982 poll.

TABLE III

Public Opinion on the Problems
With Which the Public Schools Must Deal

	National Totals %
Lack of discipline	27
Lack of proper financial support	22
Use of drugs	20
Poor curriculum/poor standards	11
Difficulty getting good teachers	10
Teachers' lack of interest	7
Integration/busing (combined)	6

Source: The 14th Annual Gallup Poll of the Public's Attitudes Toward the Public Schools.

The poll also asked the interviewees how they would prefer to cut costs in education. Seventy-one percent were in favor of reducing the number of administrative personnel. Another 49 percent recommended reducing the number of counselors on the staff; 42 percent were opposed to this move, and 9 percent had no opinion. Seventy-six percent opposed reducing the number of teachers by increasing class size, while 93% opposed reducing instructors in the basics such as reading, writing, and arithmetic.[25]

The poll also revealed that the public strongly supports compulsory arbitration as a way to settle teachers' strikes (79% in the survey).

V. THE PROBLEMS OF DISCIPLINE, VIOLENCE, AND VANDALISM

Public Opinion Again

The 1982 Gallup Poll asked: Do you regard discipline in your local schools as a "very serious" problem, a "fairly serious" problem, "not too serious," or "not at all serious"? Approximately 7 persons in 10 said it was a very serious or fairly serious problem. School administrators appear to view the problem in a different way. The public thinks that the problem is related to the observance of rules and regulations and respect for authority. Administrators are more likely to think of discipline problems as absenteeism, vandalism, and similar behavior.

There is no doubt that vandalism and violence are still serious issues. According to data from 26 cities in the U. S. Law Enforcement Administration's national crime survey of public schools, the risk of violence to teenagers is greater in the schools than elsewhere. Forty percent of the robberies and 36 percent of the assaults on urban teenagers occur in schools. The risks are especially high for youths aged 12 to 15. Indeed, 68 percent of the robberies and 50 percent of the assaults on youngsters of this age occur at school. Only 17 to 19 percent of violent offenses against urban youths in this age group occur in the street.

From the reports of students collected by the National Institute of Education in 1976, theft was easily the most widespread of the offenses. Nearly 2½ million of the nation's secondary school students had something worth more than a dollar stolen from them in a month. An estimated 282,000 secondary school students reported that they were attacked at school in a typical one-month period. The proportion was twice as high in junior high schools as in senior high schools. The risk of serious attack was greater in urban areas than elsewhere. For the typical secondary school student it was estimated that he had about one chance in nine of having something stolen in a month, one chance in 80 of being attacked, and one chance in 200 of being robbed.

The information gathered from secondary school teachers revealed that 5,200 were physically attacked in the period of one month. Nearly one-fifth of the attacks required medical treatment. Attacks on teachers were almost five times as likely to result in serious injury as attacks on students.

Over all, the risks faced by a typical teacher in a secondary school were as follows: He had around one chance in eight of having something stolen at school in a given month; one chance in 167 of being robbed; and one chance in 200 of being attacked.

Estimates of offenses against schools were gathered from school principals' reports and were described as being "probably conservative." It was found that typically a school's risk of experiencing some vandalism in any one month is greater than one in four. Estimates of the annual cost of school crime were put at between $200-$600 million.

Some connection between vandalism (violence) and the problem of discipline emerged from the NIE survey. Students and teachers in secondary schools and principals at both levels were asked to recommend ways for schools to reduce vandalism, personal attacks, and theft. Of all the various recommendations, discipline was rated as being of prime importance. Indeed, with the exception of the successful practices reported by elementary school principals, discipline was ranked first by all groups of respondents.

In human terms the costs of crime are much greater. Because of fear for their personal safety, teachers fulfill their duties less effectively, and students stay home from school because they are afraid. Twelve percent of the secondary school teachers said they were threatened with injury by students at school; a similar number said they were afraid to confront misbehaving students, and almost half of the teachers reported that in the period of a month some students had insulted them or made obscene gestures at them.

According to the traditional public school advocates in the 19th century, school was a place of instruction of the young to prevent them resorting to crime when they left school. The criminal, in other words, was assumed to be an adult. We get a somewhat different picture today. According to a 1974 FBI report, 22.2 percent of the total arrests for violent crimes and 48.1 percent of total arrests for property crimes in 1973 were of individuals aged 11 to 17. Yet only approximately 14 percent of the U. S. population was in this age range.

The most dramatic increases in school crime occurred in the early 1970s. A report of Senator Birch Bayh's special subcommittee to investigate juvenile delinquency found that between 1970 and 1973 homicides increased by 18.5 percent; rapes and attempted rapes increased by 40 percent; robberies increased by 36.7 percent; assaults increased by 77.4 per-

cent; burglaries of school buildings increased by 11.8 percent; drug and alcohol offenses on school property increased by 37.5 percent; and dropouts increased by 11.5 percent.[26]

VI. COMPARISONS WITH PRIVATE SCHOOLING

The 1982 Coleman Study

A recent study comparing private and public schools has created considerable controversy.[27] The following were its major findings: 1) Catholic secondary school achievement levels were significantly higher than public ones. 2) Differences in achievement could be accounted for by different academic demands and discipline within the schools. 3) While attaining higher outcomes in achievement, Catholic schools diminished achievement differences among children of varying socio-economic backgrounds. 4) Private schools were less racially segregated than public schools. 5) Private school attendance patterns did not contribute to the overall level of segregation of secondary education.

There is a question as to whether the study used a truly representative sampling. The sample was likely to be biased because many public and private schools declined to participate in the study and many students failed to respond to every test item. Another problem was that Coleman assumed some outcomes to be the result of deliberate private school policy when they could have simply been due to class or behavioral differences. Thus, holding students responsible for property damage is more feasible in higher-income communities, and such misconduct as "verbal abuse" is less likely to occur.[28]

With respect to academic achievement differences, it has been argued that the selectivity of private schools, in contrast to the open admission policy of public schools, results in a great percentage of bright students. This difference alone will result in higher academic performance. Moreover, although Coleman and his colleagues tried to standardize for socio-economic status, there were other variables that could not be controlled for. It has been suggested, for instance, that private school parents may provide a home environment more supportive of academic achievement than public school parents.[29] The better academic performance of private schools that Coleman found, therefore, could be partly attributable to this factor.

For the most part, however, Coleman's findings on academic performance remain valid. The same is true of his findings that achievement levels are more homogeneous across socio-economic groups in Catholic high schools than in public high schools.

We now have enough evidence to suggest that private schools have a more efficient performance record, even when variables such as socio-economic status, etc. are controlled for.

On the question of cost, the evidence seems fairly strong that private schooling is less expensive. (This, of course, is an aspect of schooling that is not connected with the controversy over the Coleman report.) As discussed in section II, one reason for the cost differential is the economic inefficiency associated with monopolies. Another is that the public school teacher is more likely to belong to a union than the private school teacher.

One study by R. B. Victor in 1978 concluded that teachers' unions in the public schools succeeded in raising salaries from 5 to 20 percent.[30] This is likely to be an underestimate of cost increases, however, for the following reasons: the real cost of education is not necessarily affected by an increase in teachers' salaries; there can be a reduced quantity of education supplied for a given (constant) wage bill; a study by Antony Pascal suggests that teachers reduce output by such methods as negotiating downward the length of the school day and the size of classes.[31] Maximum class size, as a subject for union negotiation, was specified in 34 percent of Pascal's sample, and the duration of school day was specified in 58 percent. In addition, conventional studies on the costs of teacher employment in public schools usually omit negotiated increases in fringe benefit packages such as pensions, vacations, and insurance, together with the increased employment costs of negotiated policy changes with regard to entry requirements, assignments and promotion rules, para-professionals, and professional development.

One consequence of exclusive union representation in the public sector (which includes those areas where agency shops are now mandatory) is that it has the effect of redistributing political power in a democracy to the advantage of the suppliers of services. Not only has the duration of the school day and student discipline already reached the union bargaining table, the same is now true of curriculum policy. As a result, the supplier of education, the teacher, is beginning to exert greater influence on the content of education (and its cost) than is the average member of the electorate. In contrast, individuals who use private schools can exert influence by their ability to transfer their children from one school to another.

Union-induced strikes among teachers have a greater impact on public schools, and the long duration of strikes that we have been witnessing in some areas cannot help but have a

deteriorating effect on education. According to preliminary results of some of my own research, private school enrollment is higher in areas where one can expect to find a high number of work stoppages each year in public school service. This suggests that, on the margin at least, parents are more willing to transfer from public to private schools in areas where the public school record of strikes is unfavorable.[32] Another piece of evidence indicating that the public feels sensitive on this issue is the 1982 Gallup poll, which asked the respondents whether they would favor or oppose a plan which would require disputes to be settled by the decision of an arbitrator or a panel acceptable to both a union and a school board. The proportion in favor was 79 percent.

Apparently, Coleman's findings of superiority of private over public schools would be widely accepted by the public. The 1982 study indicated that nearly half of those who are now sending their children to public schools would choose private schools if the latter were made tuition-free. Those parents who selected the private schools over the public schools were then asked to explain their choice. The reason offered most often was that private schools have the "highest standard of education." "Discipline" came next, followed by "individual attention," "smaller class size," "better curriculum," and "better quality of teachers."

The relative freedom from strict union control of employment in private schools implies that they are better able to meet the problem of a shortage of math and science teachers. We have seen that this shortage is best overcome by offering salary differentials to teachers who are in scarce supply. And if the salary structure in private schools is constructed to include incentives generally, then they can be expected to be more efficient. Recall that Rutter's study showed that better results were obtained where teachers prepared their lessons in advance, arrived on time at the start of the lesson, taught by directing attention to the class as a whole, and regularly sat and graded homework -- in other words, made more of an effort. Financial incentives encourage such an effort, which will be enhanced by the greater potential flexibility of private schools' salary structure.

As we have seen, research indicates that physical facilities in schooling are not a very significant influence in student achievement. Private schools usually place less emphasis on physical facilities than public schools, and this might be another reason for differential success in student achievement measures. We see also that some teachers are more effective with some types of students than with other types. Clearly, better educational outcomes will occur where more opportunities are allowed for matching teachers and stu-

dents. These opportunities are more likely with private schools than within the public system, where students often are simply allocated to the school nearest to them.

With respect to the problem of antisocial behavior, the 1976 NIE study found that delinquency in public schools is often the result of a student's conflict with teachers who are quick to label him a "problem case." There is a greater chance that this kind of issue will be resolved where there is an increased choice of schools. Moreover, where competition between schools is reasonably effective, a school that cannot maintain discipline will lose its customers to one that can.

The NIE study found that academic competition inside schools reduced a school's risk of violence. "The data suggests that violent students are more likely to be those that have given up on school, do not care about grades, find the courses irrelevant, and feel nothing they do makes any difference."[33] Such a finding is also relevant to the public/private debate. It is well-known that in the "progressive" atmosphere of modern school teaching, grading has typically become de-emphasized because of the preference for "cooperation" over competition. In contrast, private schools have, on average, defended the traditional structure of education where competition and grading is an essential feature.

Consider, too, the NIE's additional finding that larger schools experience more violence and vandalism than smaller ones. Since private schools in the U.S. tend to have smaller enrollments than public schools,[34] we should find that private school areas should be less crime-prone. The large size of public schools has been partly the result of the recent movement to consolidate into enormous public schools and districts. The movement has been led by educational professionals whose own salaries increase with the size of the school and district.[35] The private school system has not lent itself to this kind of manipulation.

In their paper, "Juvenile Delinquency and Education: An Econometric Study,"[36] John Lott and Gertrud Fremling report statistically significant evidence that public (compared with private) education does not reduce juvenile delinquency, and that indeed it possibly contributes to it at the margin. The latter finding was based on regression analysis involving the ratio of pupils in public schools to the total number of pupils (private plus public).

The authors dismissed the possible objection that there was a spurious correlation based on the argument that high income families more often send their children to private

schools and their children would not commit much crime anyway. This criticism is applicable only to cross-sectional studies in which areas differ with respect to what social strata people belong to. Lott and Fremling, however, employed time-series data that removed this problem. They found that during the 11 years between 1961 and 1971 the juvenile delinquency rate increased by 14.9 per thousand. During the same period the percent of children attending public schools rose 3.56 percent and, using a regression equation, it accounted for 22 percent of the entire increase in delinquency for the period.

VII. PROSPECTS FOR REFORM

It has recently been argued that the "crisis of confidence" in education is closely intertwined with the lack of confidence in government generally. The Center for Political Studies (CPS) at the University of Michigan has reported that Americans' trust in their government declined consistently and dramatically during the '60s and '70s. The percentage of people whom the CPS classified as "trusting" declined from 58 percent in 1958 to 19 percent in 1978, while those considered "cynical" toward government increased from 11 percent to 52 percent over the same period.[37] It has been argued that the overall public assessment of public education would be very unlikely to improve appreciably even if student achievement, discipline, etc. improved. "It is just not conceivable that, at a time when cynicism about public authority is at an all time high (and, for all we know, rising), an institution so central and so fundamentally political as education could bounce back to new heights -- or even modest elevations -- of public confidence and esteem."[38]

Less pessimistic observers believe that something can be done and have offered specific proposals for reform. Perhaps the leading example is the report of the 1983 National Commission on Excellence in Education. There are problems, however, with its proposals. It recommends compulsory instruction in the basics, including three years of math, science, and a half year of computer science for all students. The Commission does not say how this is to be financed, and we have seen that one of the major problems in the science and math area is low teacher salaries. A more important financial problem, however, is the Commission's call for an increase in the school year to 200 days from the current average of 180 days and a lengthening of the school day to seven hours from the present five or six. This will require school systems to increase expenditures as much as 30 percent. Such increased funding is not necessarily the answer to the problem. The decline in quality, in fact, occurred as public school spending expanded from $41 billion in 1970 to $90 billion in 1981.

The central problem is to make the most out of each current dollar that is spent on education. Only after this priority had been attended to should we consider the need for increased spending.

As has been suggested, we are not making the most of each dollar because of bureaucratic monopoly elements in the system. The best way to improve the output of a given amount of expenditure, therefore, is to encourage a more competitive system. This, in turn, can only be done by reducing the present barriers to private schooling which will increase competition with the public sector.

Perhaps the best way to increase competition between private and public schools is to implement a program of education tax credits, a policy that has become more feasible with the recent Supreme Court decision in Mueller v. Allen. In that case the Court upheld a Minnesota law that allows tax deductions for the costs of public, parochial, and other private education. (It seems clear that the Court's findings would apply to a religiously "neutral" tax credit as well.) Tax credits would allow low and moderate-income parents the same opportunity to choose private schools that wealthy families currently enjoy. They would give all students a wider range of choices and would improve the public schools through the pressure of competition.

In both the public and the private sectors, meanwhile, deregulation is necessary to increase efficiency and lower costs. At present, school districts are largely under the control of the states. The focus, then, must be on changing state attitudes toward decentralized provision and compulsory school attendance laws. States which currently have more flexible requirements include Delaware, Idaho, New Jersey, South Dakota, Vermont, and Connecticut. Connecticut, for example, makes a broad exception to the school attendance requirement. Connecticut law provides that parents who do not send their child to public school must educate the child themselves or "show that the child is elsewhere receiving equivalent instruction in the studies taught in public schools."

Other states have consciously deregulated private schools. Tennessee prohibits the state board and local board from regulating faculties, textbooks, or curricula in church-affiliated schools. North Carolina requires only that private schools keep records on pupil attendance and disease immunization, and that they select and administer nationally standardized tests to students each year. The teacher certification requirement is a major barrier for many private schools. The removal

of this barrier, which has been accomplished in some areas, will provide more flexibility and will reduce costs.

State legislatures are under increasing pressure, especially from fundamentalist Christian schools, to deregulate private schools. It has been argued recently that if change is to come it would be more desirable to have it come through legislation than through the courts. "It is less polarizing, and it minimizes personal costs for the individuals involved."[39]

Judging by the opinion polls reviewed above, if states do not take action to provide more flexibility, choice, and competition in education, individuals will seek their own solutions. One of these is to switch from the public to the private sector. Indeed, striking evidence of this trend has already been revealed. Between 1970 and 1980, for instance, public school K-12 enrollments decreased by 10.7 percent compared with a 4.9 percent decrease in private enrollments. Between 1981 and 1990 it is predicted that private enrollments will increase by 8 percent compared with an expected 2 percent increase in public school enrollments.[40] The reported figures, however, probably cover only established, accredited schools. It is likely that families who choose unaccredited schools do not want state approval nor do they want to be counted by the Census Bureau. It is a matter of faith with some schools to reject state authority and to refuse to give information about themselves.

Bruce Cooper and Donald McLaughlin have used techniques specially designed to locate the more obscure schools in a sample of 22 counties. They have estimated that there are 15,000 non-Catholic private schools in the U.S., serving 2 million children. They also estimate that enrollments in these schools are increasing at a rate of 100,000 per year.[41] This is in striking contrast to the steady decline in enrollments in public schools.

What evidence there is using standardized tests suggests that the unaccredited institutions are providing adequate education. "Test scores introduced as evidence in a few law suits suggests that children's performances improve after they are enrolled in unauthorized educational programs."[42]

My own research, as we have seen, suggests that parents increasingly select private schools in areas where the incidence of union-induced work stoppages in public schools is highest. My preliminary results also suggest that families are transferring to private schools in large metropolitan areas where problems of discipline and crime in schools are concentrated.

Meanwhile, we can expect that if the public system is seriously threatened by families migrating to alternative institutions, it will improve its quality at least marginally. Even the parental alienation and desertion from public schools that we have been witnessing recently may have provided stimulus. Over 30 states have recently adopted minimum competency tests for public school student performance, and many local jurisdictions have done the same.[43] There is a new emphasis on basic skills in many schools, and grade promotions are increasingly based on performance rather than age or attendance.

The idea that if the states do nothing, the parents will, would be considered a major safeguard by those who have libertarian or individualistic dispositions. In this they would seem to be echoing the sentiment of Adam Smith's 19th century disciple, Sir Robert Lowe, who in 1868 told the British School Enquiry Commission:

> I myself see nothing for it but to make the parents of the children the ministers of education, and to do everything you can to give them the best information as to what is good education, and where their children can be well taught, and to leave it to work itself out.

FOOTNOTES

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